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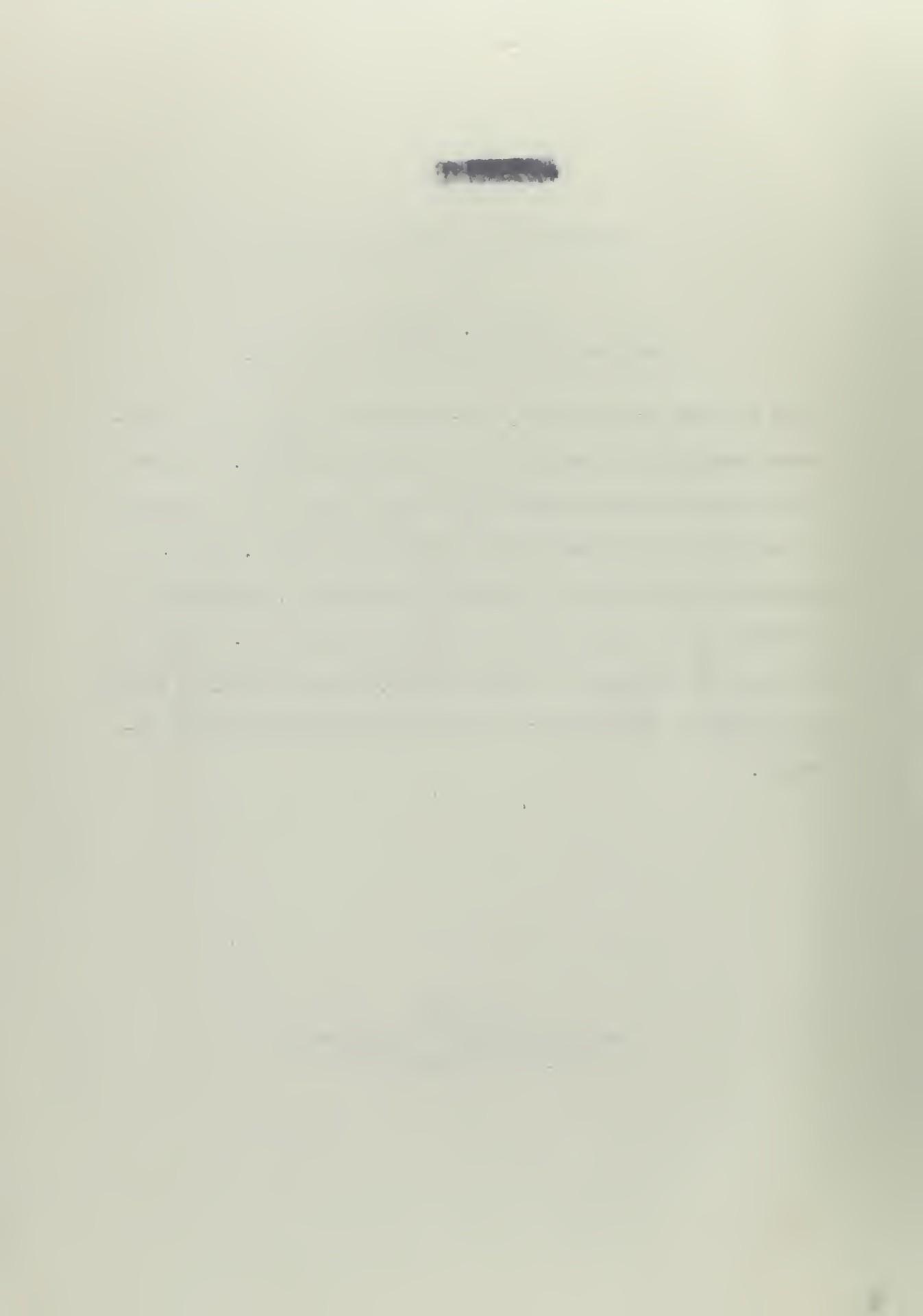
A CURRENT LOOK AT PROFICIENCY FLYING

BY

Jack E. Speiser  
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Naval aviators are given many non-operational flying duty assignments requiring the performance of proficiency flying. The attitude of some aviators towards proficiency flying is not conducive to achieving the maximum amount of training possible. The proficiency flying program at the Naval Air Facility, Monterey, is reviewed and recommendations for improvement are made. Emphasis is placed on developing a coordinated flying and non-flying training program in which the proficiency of the aviator might be improved.

May 1962  
Master of Science in Management  
Navy Management School



A CURRENT LOOK AT PROFICIENCY FLYING

\* \* \* \* \*

A Research Paper

Presented to

the Faculty of the Navy Management School

U. S. Naval Postgraduate School

\* \* \* \* \*

In Partial Fulfillment

of the Requirements for the Degree

Master of Science in Management

\* \* \* \* \*

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## CHAPTER I

### INTRODUCTION

Love for flying has unquestionably been a vital requisite for military aviators throughout the years. The numerous requirements, obligations, and limitations imposed upon military aviators today undoubtedly requires the individual to regard his love for flying as a prime factor in justifying his continued participation in aviation. To a great extent, the status and prestige once considered almost synonomous with military flying has disappeared.

The aviator, not unlike personnel engaged in other military and civilian professions, takes pride in his achievements and strives to improve his capabilities. The aviator fully understands the potential dangers inherent in military aviation and realizes that survival is dependent to a large extent on his capabilities as an aviator. The high level of flight proficiency a naval aviator normally attains during assignments to operational aviation units often diminishes seriously when the officer is reassigned to proficiency flying status. The needs of the service and concept of providing a well rounded career pattern for the naval aviator require the assignment of many aviators to non-operational flight duties. Such assignments are made with the full realization that the aviator's flight proficiency will almost invariably diminish.

It is not the purpose of this paper to attempt an evaluation



of the current aviator rotation system although improvements in this area might well be possible. An attempt will be made, however, to discuss various problem areas in the proficiency flying program at the United States Naval Postgraduate School, Monterey, with the goal of presenting recommendations for the possible improvement of this program. Much of this study is directly related to the United States Naval Postgraduate School. However, the study is substantially applicable to other stations supporting a proficiency flying program.

Proficiency flying is officially defined as that flying performed under competent orders by an aviator primarily to maintain his basic aeronautical skills during periods of duty assignment wherein he is restricted from flying with sufficient regularity and scope to maintain a high degree of operational readiness.<sup>1</sup>

Providing necessary aircraft and facilities is an obvious requirement for a command supporting a proficiency flying program. Equally important, however, is the necessity to encourage the individual aviators to achieve the highest degree of proficiency commensurate with the aircraft available and the individual's past experience and future potential.

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<sup>1</sup>OPNAV Instruction 3710.15C.



## CHAPTER II

### THE NAVAL AIR FACILITY, MONTEREY

Naval aviation facilities first appeared on the Monterey Peninsula with the commissioning of the Naval Auxiliary Air Station on 24 May 1943. The station was given the mission of administrating, operating, and maintaining facilities for the support, operation, maintenance, and training of fleet units and personnel. On 1 November 1945, shortly after the cessation of hostilities of World War II, the air station was disestablished and placed in a caretaker status.

The station was recommissioned on 20 December 1947 in conjunction with the opening of the United States Naval Postgraduate School (General Line School) at Monterey. At this time, the stated mission of the air station was to provide aircraft and air facilities to maintain the flight proficiency of aviators attached to the staff of the United States Naval School (General Line) and of aviators ordered to attend the school. In 1956, the air station was redesignated a Naval Air Facility with the mission of maintaining and operating facilities and providing services and material to support the aviation requirements of the United States Naval Postgraduate School, and to support those activities and units



designated by the Chief of Naval Operations.<sup>1</sup>

The Naval Air Facility is under the military command of the Commander, United States Naval Air Bases, Twelfth Naval District, and under the management control of the Chief, Bureau of Naval Weapons. The Commanding Officer also reports for additional duty in connection with aviation flight matters to the Superintendent, United States Naval Postgraduate School.

The Naval Air Facility is operated under a lease arrangement with the Monterey Peninsula Airport District. The Naval Air Facility is composed of approximately twenty acres of navy owned land over which the civil authorities exercise concurrent jurisdiction; approximately two hundred acres which are leased exclusively for navy use; and approximately three hundred acres devoted to runways and taxiways which is leased jointly by the navy and the Monterey Peninsula Airport District. The Naval Air Facility provides overall fire and rescue services for the airport and operates the control tower. The airport district is currently constructing a new and completely modern control tower which is scheduled to become operational on 1 July 1962. In accordance with current Federal Aviation Administration directives calling for Federal Aviation Administration operation of control towers at joint civilian and

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<sup>1</sup>Naval Air Facility, Monterey, Command Historical Report (OPNAV Report 5750-5), 1958.



military airports, the new control tower will be operated by Federal Aviation Administration personnel.

The present lease with the airport district calls for monthly payments of \$1,500. plus one-half of the runway and taxiway maintenance costs which normally amounts to only several hundred dollars a month. The current twenty year lease expires in 1972 and provides for annual negotiations.

Despite the fact that most buildings at the Naval Air Facility were constructed during the early years of the base's existence, and then for only temporary use, the present facilities are apparently adequate. The two airport runways of 4,000 and 5,000 feet are relatively short when compared to today's general trend towards expanding military and civilian airport facilities. The runway lengths are sufficient, however, for the present base loading of naval aircraft and the commercial air line's short haul aircraft serving the Monterey Peninsula area.

The lack of emergency arresting gear or jet barricades poses a possible hazardous condition to jet aircraft on landing since only one runway has a reasonably safe overrun area. The existence, however, of several naval jet airfields within a one hundred mile radius provides for the diversion of jet aircraft having possible emergency conditions. Moffett Field Naval Air Station, fifty miles north, and Lemoore Naval Air Station, ninety miles southeast, provide excellent facilities. The Naval Auxiliary Landing Field,



Crows Landing, sixty-five miles northeast, is entirely adequate for emergency landings.

Approved tacan and instrument landing system (ILS) approaches provide the airport with facilities for operation during periods of instrument flying conditions as well as providing instrument training facilities. Flying conditions are generally favorable during the winter and spring months with increasing amounts of low stratus clouds appearing during the summer and fall months.

The Naval Air Facility has generally enjoyed amicable relations with the community despite the close proximity of residential areas. The practice of closing the airport to military traffic after 2200 has undoubtedly aided in the preservation of a friendly military and civilian relationship. The appearance of military jet aircraft at the Naval Air Facility in March 1960 created a new noise problem and has provoked numerous complaints to the station. The actual operation of the aircraft from the airport prompts many complaints from irate citizens but the necessary high power ground turnups are the basis for many additional complaints. It is impossible to eliminate the ground turnups but the restriction of the turnups to daylight hours, as is the policy, should hold the criticism to a minimum.

The Naval Air Facility is frequently called upon to provide emergency aid to the community in the form of fire fighting services and air/land search groups. The prompt and effective response



to such calls for assistance have aided in promoting favorable relations with the community.

Through the years a wide variety of aircraft have been assigned to the Naval Air Facility in order to provide for the proficiency flying of aviators attached to the United States Naval Postgraduate School. The present base loading consists of twenty SNBs, eleven T28s, twelve T2Js, and one HUP. In 1961, station aircraft flew a total of 31,384 hours. Available records show the 1961 total approximates the average annual aircraft flight hours during the last fourteen years.<sup>2</sup>

TABLE I

NAVAL AIR FACILITY  
AIRCRAFT FLIGHT HOURS

|                      |             |         |        |
|----------------------|-------------|---------|--------|
| 1948...              | 27,058      | 1955... | 25,308 |
| 1949...              | 37,928      | 1956... | 26,097 |
| 1950...              | 32,615      | 1957... | 25,765 |
| 1951...              | 44,526      | 1958... | 28,070 |
| 1952...              | 32,000(Est) | 1959... | 23,994 |
| 1953...              | 35,000(Est) | 1960... | 31,074 |
| 1954...              | 36,553      | 1961... | 31,384 |
| 14 Year Average .... |             |         | 31,241 |

Records of the Monterey Peninsula Airport District show that military aircraft movements at the airport have normally been

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<sup>2</sup>Ibid., 1958-1961.



approximately one-third of the total aircraft movements.<sup>3</sup>

TABLE II  
AIRCRAFT MOVEMENTS

| <u>Year</u> |       | <u>Military</u> |       | <u>Civilian</u> |
|-------------|-------|-----------------|-------|-----------------|
| 1948        | ..... | 24,865          | ..... | 55,201          |
| 1950        | ..... | 26,488          | ..... | 37,747          |
| 1955        | ..... | 29,607          | ..... | 26,091          |
| 1960        | ..... | 26,906          | ..... | 50,901          |
| 1961        | ..... | 26,011          | ..... | 49,803          |

The Naval Air Facility operates on an annual budget of approximately one million dollars exclusive of military pay. Aircraft operation expenses are currently budgeted at one hundred thousand dollars per quarter. The current station personnel allowance is twenty-nine officers, four hundred ninety-five enlisted personnel, and fifty-nine civilian employees.

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<sup>3</sup>An aircraft movement is considered as either a take-off or a landing.



## CHAPTER III

### PROFICIENCY FLYING TODAY

Assisting the Superintendent, United States Naval Post-graduate School, in providing guidance and facilities for the flight proficiency program are the Commanding Officer, Naval Air Facility, and the school's staff Aviation Officer.

The Commanding Officer, Naval Air Facility, in carrying out his additional duties under the Superintendent:

- a. Provides flight facilities for all HTA aviators attached to the Postgraduate School while at Monterey.
- b. Recommends to the Superintendent, through the Aviation Officer, scheduling policies for HTA aviators in order to facilitate and increase efficiency and economy of flight operations.
- c. Prepares flight schedules for individual HTA aviator students pursuant to policies approved by the Superintendent.
- d. Exercises direct control over flight operations and related activities of Postgraduate School HTA aviators while at or operating from the NAF.
- e. Maintains necessary records of training progress of HTA aviators.
- f. Maintains individual HTA aviators' flight logs.
- g. Submits Monthly Flight Certificates of HTA aviators to Disbursing Officer.
- h. Reports, or forward reports, to Superintendent on matters of violation of flight rules or regulations, or any other matters, favorable or unfavorable, involving personnel of the Postgraduate School.



i. Forwards to Superintendent copy of each Aircraft Accident Report wherein Postgraduate School aviators are involved.

j. Issues Instrument Rating Certificates to Postgraduate School HTA aviators who qualify therefor.<sup>1</sup>

The Aviation Officer is a senior naval aviator, attached to the Postgraduate School. He is assigned collateral duty on the Staff of the Superintendent and charged with the following responsibilities:

a. Advise the Superintendent on all non-curricular aviation matters concerning the command, including policy.

b. Recommend to the Superintendent and supervise execution of policy with regard to participation in flight operations of all aviators attached to the command.

c. Establish objectives and criteria of flight proficiency and satisfaction of Minimum Individual Training Requirements of all attached aviators.

e. Recommend to the Superintendent action to be taken with respect to aviators who are delinquent in meeting Minimum Individual Training Requirements.

f. Make recommendations to the appropriate reporting senior regarding technical competence, as an aviator, of any aviator whose performance has been observed to be markedly above or below average.

g. Supervise the scheduling of aviators attached to the command for flight operations.

h. Take action on aviation administrative matters of the command, including: reports of flight violations, pilot-time reports, review of pilot flight logs, aircraft accident reports, quarterly reports of flight violations, and reports of aviators delinquent in Minimum Individual Training Requirements.

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<sup>1</sup>United States Naval Postgraduate School Instruction 5000.1C, Staff Instructions, p. IV-10.



i. Maintain files of all pertinent aviation directives and information, and disseminate information to aviators as required.

j. Maintain liaison with the Commanding Officer, Naval Air Facility, Monterey, and other commands providing support for flight proficiency program.

k. Arrange for government air transportation in connection with official business trips or change of duty of the personnel of the command.

l. Serve as Senior Member of Field Aviator's Disposition Board.<sup>2</sup>

The Scheduling and Flight Liaison Officer is assigned with-  
in the General Line and Naval Science School and provides assist-  
ance to the Aviation Officer. He assumes responsibility for the  
clerical work and records in the Aviation Office and acts as liaison  
officer with the Naval Air Facility with respect to proficiency  
maintenance flying by aviators attached to the Postgraduate School.<sup>3</sup>

The Naval Air Facility, Monterey, is unique in one respect  
in that it is believed to be the only naval air station or facility  
operated solely for the purpose of providing proficiency flying  
facilities. The number of naval aviators supported by the Naval  
Air Facility has been steadily increasing. In March 1962, the  
aviators assigned to the school as students totaled 666. To this  
figure must be added the naval aviators assigned to the Postgrad-  
uate School Staff, the Army Language School, and the Naval Air  
Facility. The total number of aviators supported by the Naval Air

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<sup>2</sup>Ibid., p. IV-5.    <sup>3</sup>Ibid., p. VI-4.



Facility exceeds 700.

Unlike operational flying billets where the aviator's qualifications and capabilities are a closely controlled command responsibility, aviators in a proficiency flying status are largely responsible for their own qualifications. A primary objective is the fulfillment of the following minimum annual flight requirements as specified by the Chief of Naval Operations:

90 hours total pilot time (100 hours maximum)  
15 hours night time  
20 hours instrument time.<sup>4</sup>

In order to receive the maximum training possible within the flight hours allowable, each flight should be utilized as effectively as possible.

It is the stated command policy of the United States Naval Postgraduate School that each naval aviator shall:

- a. Attain and maintain the highest practicable standard of pilot proficiency commensurate with the requirements of the academic program and operating facilities.
- b. Comply with minimum individual requirements, as modified, accomplishing a proportionate amount of the pilot hours each fiscal quarter and as of the date of his detachment.
- c. Be allowed one-half day each regular academic week for pilot proficiency purposes, flying at additional times may be authorized or directed as necessary.
- d. Qualify expeditiously in designated aircraft.

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<sup>4</sup>OPNAV Instruction 3710.15C.



e. Qualify expeditiously for an instrument rating if not qualified; renew an existing qualification in the period 60-30 days prior to its expiration.

f. Increase<sup>5</sup> to the maximum his proficiency in instrument flying.

The types of aircraft currently assigned to the Naval Air Facility are generally considered adequate for the proficiency flying mission. The old, but faithful, SNB continues to be the backbone of the program due largely to its proven ability to operate regularly between maintenance checks. The aircraft's radio and navigation equipment make it extremely well suited to instrument flight proficiency training. The T28 aircraft are also excellent instrument flying aircraft and suffer only slightly from the need for more frequent maintenance efforts. The T28 and SNB aircraft are particularly well suited for proficiency flying because of their ability to remain aloft for four hours or more and still be utilized for several instrument approaches. The T2J is an ideal basic training aircraft and is an excellent aircraft for its local mission. The T2J utilization suffers due to increased maintenance efforts required and the long supply line for spare parts. In addition, the T2J suffers like other jet aircraft from its relatively short cycle time. It is not difficult to complete a two and one-half hour flight in the T2J but in so doing there is

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<sup>5</sup>United States Naval Postgraduate School Instruction 5000.3B, Regulations, p. 3-5.



little or no allowance for instrument approaches or other unforeseen circumstances. During the two daytime four hour flight periods, the T2Js may be landed and refueled thus enabling the pilots to fly for three or three and one-half hours. The night flying period for the SNB and T28 aircraft, 1800-2200, permits a four hour flight. The night flying period for the T2J aircraft, 1900-2200 allows for only one flight. The delay in launching the T2J night flights results from an insufficient number of personnel available in the duty sections.

The limited number of T2J aircraft available and the large number of aviators desiring to retain their jet aircraft familiarity have created serious scheduling problems. Approximately eight flight hours per month is desireable in order to attain the minimum requirement of ninety hours each year. The SNB and T28 pilots are normally able to reach the eight hour mark in two flights, but the T2J pilots require a minimum of three flights. The cancellation of scheduled flights due to weather or aircraft availability often requires the aviators to fly lengthy cross country flights on weekends in order to accumulate the necessary flight hours. The T2J pilots often find it necessary to fly in the SNB and T28 aircraft to increase their flight time. Many previously qualified jet aviators have chosen the easier way out and have foregone the desireability of maintaining proficiency in the jet aircraft in order to assure themselves of the more readily available SNB and T28 aircraft.



Aviators without previous jet experience are encouraged to check-out in both the SNB and T28 aircraft in order to provide a greater degree of flexibility in preparing the weekly flight schedule. Aviators with recent jet experience have generally been permitted to check-out in the T2J aircraft regardless of the number of aviators involved. This policy has often resulted in an excessive number of aviators attempting to utilize the limited number of T2J aircraft with the resulting consequence of limited flight time for a number of individuals.

The procedures used in checking out a pilot in one of the three station aircraft have heretofore been extremely liberal. The completion of a written handbook examination and a familiarization flight with a qualified pilot was all that was required. Only recently has a ground handling and flight familiarization syllabus been prepared for each type aircraft.

The individual aviators are equally at fault in regards to aircraft check-out procedures due to the widespread feeling of "give me a handbook and I will fly the aircraft." One has only to recall the hours spent in trying to understand the various aircraft systems while undergoing flight training or replacement air group training to realize that a brief scanning of the aircraft handbook merely scratches the surface. It becomes increasingly difficult to attain a high level of familiarity with an aircraft model when limited flight time is available and intervals of



several weeks may occur between flights. Attempting to remain current in more than one aircraft type under these conditions only adds to the problem.

The implementation of the Naval Air Training and Operating Procedures (NATOPS) program will undoubtedly result in changes in the aircraft qualification procedures currently followed. The NATOPS program seeks standardization through comprehensive open and closed book written examinations, oral quizzes on ground operating procedures, and flight checks for each aviator in each aircraft flown.<sup>6</sup>

Aside from maintaining a general familiarity with the aircraft and existing flight regulations, the aviator in a proficiency flying status can normally only expect to maintain some semblance of instrument flying proficiency. The degree to which the aviator maintains or improves his instrument flying capabilities is purely an individual matter. As long as a current instrument rating is maintained and the required number of instrument flight hours are logged annually, the pilot is conforming to established regulations.

Few aviators will disagree with the premise that a high degree of instrument flying proficiency is a requirement of the military aviator today. Not only is there an increased emphasis

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<sup>6</sup>OPNAV Instruction 3510.9.



being placed on tactical all-weather capabilities but the increasing congestion of the nation's civil airways may ultimately require all flights to be positively controlled by instrument flight plans. Despite the widely acknowledged importance of instrument flying proficiency, a great many aviators consciously or uncounsciously fail to take advantage of existing opportunities to further this capability.

In a 1951 survey, aircraft squadron and air group commanders were asked to specify those areas of training in which naval aviators were most deficient. The flight deficiency mentioned most frequently was that of instrument flying. Various suggestions were made as to reasons for this pilot deficiency, as follows:

- a. The pilot became reasonably proficient on instruments, then had no opportunity to practice for a considerable period of time.
- b. Not enough time was devoted to instrument flying.
- c. Aviator did not get enough actual weather flying.
- d. The attitudes of pilots towards instrument flying,<sup>7</sup> were not conducive to learning this phase of aviation.

Examples of the cited reasons for instrument flight deficiencies can be observed in many aviators engaged in proficiency flying today despite the fact that opportunities exist wherein the

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<sup>7</sup>Willian McGehee, Survey of Psychological Problems and Services in Naval Aviation, Committee on Aviation Psychology, National Research Council, June 1951.



aviator may increase his instrument flying capabilities. Short of requiring an instrument flight syllabus, opportunities for direct supervision and control of the aviator's instrument training program are limited. Instead, emphasis must be placed on further developing the individual's interest in instrument flying.

Non-flying, or ground school, training is seldom utilized in proficiency flying programs. The majority of commands supporting a proficiency flying program would undoubtedly find it extremely difficult to provide ground school training in view of the problems associated with scheduling such a program. Likewise, many commands have little or no equipment or facilities for such training.

The Naval Air Facility, Monterey, however, has a "captive audience" due to the scheduling of each aviator for a one-half day period each week. Fulfillment of the flight schedule would of necessity remain the paramount consideration but the integration of a ground training program with the flight schedule should provide for a minimum of one ground training period monthly. Ground training could also be accomplished when adverse weather results in the cancellation or curtailment of scheduled flights. In order to be effective, informative, and acceptable by the aviators, the ground training program would require careful planning and thorough preparation. Subject areas for coverage could include aircraft system operations, aircraft operating procedures, emergency and



survival procedures, and recent changes in air traffic regulations. Consideration could also be given to providing a review of the various publications and directives pertaining to flight regulations so as to better prepare the aviators for the examination required for the annual renewal of an instrument rating.

The implementation of a ground training program at the Naval Air Facility should not require additional personnel. Aviators currently assigned to the Operations Department could adequately serve as instructors. Although seldom if ever utilized, the framework for such a program is set forth in a local directive.

When flying is not possible due to weather or other causes, the Commanding Officer, Naval Air Facility, may retain the students at the field for part or all of the schedule period. If the students are retained at the field, he shall make arrangements for the gainful occupation of their time such as by scheduling Link Trainer time, by scheduling lectures on flight regulations or other suitable activity.<sup>8</sup>

Another form of ground training which can be made both interesting and effective is the instrument trainer. Flight simulators developed for specific aircraft provide the best synthetic training, but simulators are not manufactured for the training type aircraft which are normally used in the proficiency flying program. Short of utilizing flight simulators, instrument trainers provide the best synthetic training. Throughout the aviation industry,

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<sup>8</sup>United States Naval Postgraduate School Instruction 5000.3B, Regulations, p. 3-3.



greater emphasis is being placed upon synthetic training aids. As an example:

The tremendous financial investment in jet aircraft and personnel has led to increased use of simulators in the training of aircrews. Much effort has been expended in making simulators as nearly like the actual vehicle in design and reaction as is engineeringly possible. The use of these devices saves money, fuel, and training time, to say nothing of the reduction of the accident risk always present in training flights. The military service and the airlines have assigned large blocks of their transition and proficiency training hours to simulator time. For example, a representative airline has its captains receive 20 hours of simulator experience and from 10-30 hours of in-flight transition. First officers and flight engineers receive more simulator training and less in-flight training.<sup>9</sup>

The Naval Air Facility currently has four instrument trainers available:

Basic Instrument Trainer. . . . . (1-CA-1)  
Basic Instrument Trainer-T28 Modified . . (1-CA-1-T28)  
Basic Jet Instrument Trainer. . . . . (2-F-23)  
Dual Engine Instrument Trainer. . . . . (2-F-25)

Aviators are scheduled for the instrument trainers on the weekly flight schedules but due, to an apparent lack of interest in this type of training, the trainers are utilized to a very limited extent. Four ninety-minute sessions are scheduled daily for each trainer. Records for the three month period October-December 1961, show that utilization of the individual trainers varied between 1.4 and 25 percent (based on six hour operating day).

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<sup>9</sup>S. B. Sells, Ph.D., and Charles A. Berry, M.D., Human Factors in Jet and Space Travel (New York: Ronald Press Company, 1961), p. 141.



The evident lack of interest shown by many aviators towards the instrument trainers can undoubtedly be largely attributed to the belief that such training is of little practical value. Admittedly, the instrument trainer does not "fly" like an aircraft, but basic instrument skills, navigation techniques, and radio procedures can be practiced. Improvement of basic skills on the ground in training devices enables the aviator to utilize the limited amount of flight time to better advantage. Mr. A. F. Bonnalie, Director of Training for Flight Operations for United Air Lines, sums up the issue in this manner:

Flying is not learned any place but in the airplane. The dual control system of instruction originally used by the Wright brothers in 1908 is still the basis for flight instruction, but the flight simulator has its place in teaching those things that are not directly the skill of flight.<sup>10</sup>

Throughout this chapter, various aspects of the flight proficiency program at the Naval Air Facility, Monterey, have been discussed. Emphasis has been placed on the instrument phase of proficiency flying. It is my belief that only in this area can any real proficiency be retained and then only if the individual aviator desires to retain his instrument flying proficiency.

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<sup>10</sup>A. F. Bonnalie, Aeronautical Engineering Review, (October, 1956), 71.



## CHAPTER IV

### RECOMMENDATIONS AND CONCLUSIONS

The question as to whether proficiency flying is worth the cost and effort required is one which is discussed frequently. The cost conscious individual might well call the program expensive, wasteful, and of little value to the aviator. The aviators themselves are often divided in their reactions. Some will argue vehemently in favor of the program while others will argue no less ardently in opposition.

The degree of flight proficiency which an aviator maintains over a one, two, or five year period of proficiency flying is extremely difficult to evaluate accurately. With the advent of the Replacement Air Group Training Program, which entails a thorough and closely supervised training program for all aviators destined for fleet units, the pretense of maintaining proficiency while shore based may not be necessary. The degree to which the aviator's motivation and interest would decrease during extended periods of absence from the "cockpit" might well be of greater significance than the flight proficiency itself. The Federal Budget provisions permitting the payment of flight pay, without the requirement for flying, to aviators who have been designated aviators for at least twenty years is unquestionably



sound.<sup>1</sup> In the Navy approximately 1350 aviators will be placed in this category in the year 1962.<sup>2</sup> The ramifications of any serious proposals to eliminate entirely the requirement for proficiency flying would be numerous and extremely complex and is considered beyond the scope of this paper.

Even in accepting the premise that proficiency flying is not necessary for an individual's future career as a professional aviator, few people would go so far as to say there was absolutely no benefit to be derived from the proficiency flying. Flying like all other skills can be improved with practice and it should be the goal of the aviator to improve his skills while assigned in a proficiency flying status. The results will largely be determined by the individual but the supporting command has definite obligations beyond providing the aircraft.

Without going beyond the generally accepted concepts of the proficiency flying program, the following recommendations are made for the possible improvement of proficiency flying at the Naval Air Facility:

- a. Restrict the T2J to the number of aviators who can regularly be flown three days a month. Continue to restrict the T2J

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<sup>1</sup>The Budget of the United States Government for Fiscal Year Ending June 30, 1962 (Washington: Government Printing Office, 1961), p. 572.

<sup>2</sup>Navy Times, March 21, 1962, p. 2.



to those aviators having recent jet experience.

b. Provide group briefings for pilots checking out in all aircraft. Continue the use of the handbook examination and the familiarization syllabus. Require a minimum of two flights with different aviators when checking out in a new aircraft.

c. After the check-out period, attempt to schedule two aviators together as much as possible so as to create greater confidence in the "pilot team."

d. Prepare a monthly flight schedule so as to encourage the pilots to fly the full four-hour flight period. It is a current tendency to fly less than four hours on the first scheduled flight each month so as to better insure a second flight.

e. Aviators reporting to the school who are behind in flight time should be expected to make up the deficiency on cross country flights so as not to penalize others.

f. Instrument flying should be encouraged, both actual and simulated. Require proficiency instrument checks to be flown periodically.

g. Initiate a ground school program covering appropriate subjects.

h. Require increased utilization of the instrument trainers. Provide the trainer operators with specific instructions for the practice sessions.

i. Maintain records showing participation in the ground



training program.

j. Investigate the possibility of securing permission to conduct low level navigation flights over specific routes.

k. Attempt to make the entire program as interesting as possible so as to create an interest among the aviators.

During recent years, a large and expensive establishment has been maintained on the Monterey Peninsula for the sole purpose of providing facilities for the proficiency flying of aviators attached to the United States Naval Postgraduate School. Individuals may have different ideas as to the benefits derived from the proficiency flying, but it is the responsibility of each aviator participating in the proficiency flying program to gain the maximum amount of training possible.



## BIBLIOGRAPHY

Bonnalie, A. F., Aeronautical Engineering Review,  
(October, 1956), pp. 71-72.

McGehee, William. Survey of Psychological Problems and Services  
in Naval Aviation. Committee on Aviation Psychology,  
National Research Council. Washington: Government Printing  
Office, June 1951.

Sells, S. B., and Charles A. Berry. Human Factors in Jet and  
Space Travel. New York: Ronald Press Company, 1961.

The Budget of the U. S. Government for Fiscal Year Ending  
June 30, 1962. Washington: Government Printing Office, 1961.

Navy Times, March 21, 1962.

OPNAV Instruction 3510.9.

OPNAV Instruction 3710.15C.

U. S. Naval Postgraduate School Instruction 5000.1C.

U. S. Naval Postgraduate School Instruction 5000.3B.

Naval Air Facility, Monterey, Command Historical Report,  
(OPNAV Report 5750-5), 1958-1961.













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